**Thrills & Chills**

Chapter 3

Activity 2  
What Goes Up & What Comes Down

Goals…

* Measure the speed of an object at the bottom of a ramp
* Recognize that the speed at the bottom of a ramp is dependent on the initial height
* Complete a graph of speed vs. ramp height
* Define and calculate gravitation potential energy and kinetic energy
* State the conservation of energy
* Relate conservation of energy to a roller coaster ride

For You To Read Key Points To Learn

* Click here to enter text.potential energy – the energy a body possesses as a result of its Click here to enter text. in a gravitational field
* Click here to enter text.-energy – the energy an object possesses because of its Click here to enter text.
* GPE = mgh
* KE = 1/2mv2
* Unit for energy is Click here to enter text.
* Notice chart on page 224
* Energy at the Click here to enter text. = Energy at the Click here to enter text.
* KE (bottom) = GPE(top)
* 1/2mv2 = mgh *or*
* v2 = 2gh

What did you learn?

* To design your roller coaster it is necessary to know how to calculate the GPE or KE of your roller coaster
* Total energy (GPE + KE) remains Click here to enter text.- throughout the roller coaster assuming nothing is Click here to enter text. to friction/sound/heat